



## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. FAA-2021-0196; Project Identifier 2018-SW-021-AD]**

**RIN 2120-AA64**

#### **Airworthiness Directives; Airbus Helicopters Deutschland GmbH Helicopters**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** The FAA proposes to adopt a new airworthiness directive (AD) for Airbus Helicopters Deutschland GmbH Model MBB-BK 117 A-1, MBB-BK 117 A-3, MBB-BK 117 A-4, MBB-BK 117 B-1, MBB-BK 117 B-2, and MBB-BK 117 C-1 helicopters. This proposed AD was prompted by an analysis of the main rotor (M/R) blade loop area. This proposed AD would require repetitive inspections of certain M/R blade thimble areas and corrective actions if necessary, as specified in a European Aviation Safety Agency (now European Union Aviation Safety Agency) (EASA) AD, which is proposed for incorporation by reference (IBR). The FAA is proposing this AD to address the unsafe condition on these products.

**DATES:** The FAA must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <https://www.regulations.gov>. Follow the instructions for submitting comments.

- Fax: (202) 493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For material that is proposed for IBR in this AD, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email [ADs@easa.europa.eu](mailto:ADs@easa.europa.eu); Internet [www.easa.europa.eu](http://www.easa.europa.eu). You may find this material on the EASA website at <https://ad.easa.europa.eu>. You may view this material at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110. It is also available in the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0196.

#### **Examining the AD Docket**

You may examine the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0196; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, any comments received, and other information. The street address for Docket Operations is listed above. Comments will be available in the AD docket shortly after receipt.

**FOR FURTHER INFORMATION CONTACT:** Kathleen Arrigotti, Aerospace Engineer, Large Aircraft Section, International Validation Branch, FAA, 2200 South 216<sup>th</sup> St., Des Moines, WA; telephone (206) 231-3218; email [kathleen.arrigotti@faa.gov](mailto:kathleen.arrigotti@faa.gov).

#### **SUPPLEMENTARY INFORMATION:**

##### **Comments Invited**

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under ADDRESSES. Include “Docket No. FAA-2021-0196; Product Identifier 2018-SW-021-AD” at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend this proposal because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to <https://www.regulations.gov>, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this proposal.

#### **Confidential Business Information**

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as “PROPIN.” The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this NPRM. Submissions containing CBI should be sent to Kathleen Arrigotti, Aerospace Engineer, Large Aircraft Section, International Validation Branch, FAA, 2200 South 216<sup>th</sup> St., Des Moines, WA; telephone (206) 231-3218; email [kathleen.arrigotti@faa.gov](mailto:kathleen.arrigotti@faa.gov). Any commentary that the FAA receives that is not specifically designated as CBI will be placed in the public docket for this rulemaking.

## **Discussion**

The EASA, which is the Technical Agent for the Member States of the European, has issued EASA AD 2018-0061, dated March 20, 2018 (EASA AD 2018-0061), to correct an unsafe condition for Airbus Helicopters Deutschland GmbH (AHD) (formerly Eurocopter Deutschland GmbH, Eurocopter Hubschrauber GmbH, Messerschmitt-Bölkow-Blohm GmbH), Airbus Helicopters Inc. (formerly American Eurocopter LLC) Model MBB-BK117 A-1, MBB-BK117 A-3, MBB-BK117 A-4, MBB-BK117 B-1, MBB-BK117 B-2, and MBB-BK117 C-1 helicopters, all serial numbers.

This proposed AD was prompted by new test results from an analysis of the M/R blade loop area, which revealed that certain M/R blade thimbles require reduced inspection intervals. The FAA is proposing this AD to address composite failure of the M/R blades, resulting in loss of control of the helicopter. See the EASA AD for additional background information.

## **Related Service Information Under 1 CFR Part 51**

EASA AD 2018-0061 specifies compliance intervals to repetitively inspect certain M/R blades, with a blade sweep angle of 1 degree, for cracks and resin chippings in the area of the greater thimble radius and corrective actions, if there is a crack or anomaly. EASA AD 2018-0061 also specifies compliance intervals to repetitively inspect certain M/R blades, with a blade sweep angle of 0 degrees, for cracks and bulging in the teflon foil in the area of the greater thimble radius and corrective actions, if there is a crack or bulge. Corrective actions include dispatching the M/R blades to an authorized repair station, as required.

This material is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

## **FAA’s Determination and Requirements of this Proposed AD**

These products have been approved by the aviation authority of another country, and are approved for operation in the United States. Pursuant to the bilateral agreement with the State of Design Authority, the FAA has been notified of the unsafe condition described in the EASA AD referenced above. The FAA is proposing this AD after evaluating all the relevant information and determining the unsafe condition described previously is likely to exist or develop in other products of the same type designs.

### **Proposed AD Requirements**

This proposed AD would require accomplishing the actions specified in EASA AD 2018-0061 described previously, as incorporated by reference, except for any differences identified as exceptions in the regulatory text of this proposed AD and except as discussed under “Differences Between this Proposed AD and the EASA AD.”

### **Explanation of Required Compliance Information**

In the FAA’s ongoing efforts to improve the efficiency of the AD process, the FAA initially worked with Airbus and EASA to develop a process to use certain EASA ADs as the primary source of information for compliance with requirements for corresponding FAA ADs. The FAA has since coordinated with other manufacturers and civil aviation authorities (CAAs) to use this process. As a result, EASA AD 2018-0061 will be incorporated by reference in the FAA final rule. This proposed AD would, therefore, require compliance with EASA AD 2018-0061 in its entirety, through that incorporation, except for any differences identified as exceptions in the regulatory text of this proposed AD. Using common terms that are the same as the heading of a particular section in the EASA AD does not mean that operators need comply only with that section. For example, where the AD requirement refers to “all required actions and compliance times,” compliance with this AD requirement is not limited to the section titled “Required Action(s) and Compliance Time(s)” in the EASA AD. Service

information specified in EASA AD 2018-0061 that is required for compliance with EASA AD 2018-0061 will be available on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0196 after the FAA final rule is published.

### **Differences Between this Proposed AD and the EASA AD**

The EASA AD applies to Model MBB-BK117 A-1, MBB-BK117 A-3, MBB-BK117 A-4, MBB-BK117 B-1, MBB-BK117 B-2 and MBB-BK117 C-1 helicopters, whereas this proposed AD would apply to Model MBB-BK 117 A-1, MBB-BK 117 A-3, MBB-BK 117 A-4, MBB-BK 117 B-1, MBB-BK 117 B-2, and MBB-BK 117 C-1 helicopters with certain M/R blades installed instead. The service information required by the EASA AD requires accomplishment of certain corrective action by “ECD” or an authorized service or repair station, whereas this proposed AD would require performing the corrective action in accordance with FAA-approved procedures, instead. The EASA AD requires revising the Aircraft Maintenance Program (AMP), whereas this proposed AD would not. The EASA AD allows a tolerance to compliance times, whereas this proposed AD would not.

### **Costs of Compliance**

The FAA estimates that this proposed AD affects 216 helicopters of U.S. Registry. Labor rates are estimated at \$85 per work-hour. Based on these numbers, the FAA estimates that operators may incur the following costs in order to comply with this proposed AD.

Inspecting an M/R blade thimble area would take about 1 work-hour for an estimated cost of about \$85 per M/R blade thimble, per inspection cycle.

Repairing or replacing an M/R blade could take up to about 20 work-hour(s) and parts could cost up to about \$23,100 for an estimated cost of up to \$24,800 per blade.

## **Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

## **Regulatory Findings**

The FAA determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Will not affect intrastate aviation in Alaska, and
- (3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

## **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

## **The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new airworthiness directive:

**Airbus Helicopters Deutschland GmbH:** Docket No. FAA-2021-0196; Project Identifier 2018-SW-021-AD.

#### **(a) Comments Due Date**

The FAA must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

#### **(b) Affected Airworthiness Directives (ADs)**

None.

#### **(c) Applicability**

This AD applies to Airbus Helicopters Deutschland GmbH Model MBB-BK 117 A-1, MBB-BK 117 A-3, MBB-BK 117 A-4, MBB-BK 117 B-1, MBB-BK 117 B-2, and MBB-BK 117 C-1 helicopters, certificated in any category, with an “affected ‘angle 0’ parts” or “affected ‘angle 1’ parts” installed, as identified in European Aviation Safety Agency (now European Union Aviation Safety Agency) (EASA) AD 2018-0061, dated March 20, 2018 (EASA AD 2018-0061).

#### **(d) Subject**

Joint Aircraft System Component (JASC) Code: 6200, Main Rotor System.

#### **(e) Reason**

This AD was prompted by new test results from a composite analysis of the main rotor (M/R) blade loop area, which revealed that certain M/R blade thimbles require



reduced inspection intervals. The FAA is issuing this AD to address composite failure of an M/R blade, which if not addressed could result in subsequent loss of control of the helicopter.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Requirements**

Except as specified in paragraph (h) of this AD: Comply with all required actions and compliance times specified in, and in accordance with, EASA AD 2018-0061.

**(h) Exceptions to EASA AD 2018-0061**

(1) Where EASA AD 2018-0061 refers to its effective date, this AD requires using the effective date of this AD.

(2) Where EASA AD 2018-0061 refers to flight hours, this AD requires using hours time-in-service (TIS).

(3) Where Table 1, Table 2, and Note 2 of EASA AD 2018-0061 specify inspection thresholds, intervals, and a non-cumulative compliance time tolerance of 10% for certain required compliance times, this AD requires accomplishing those requirements, as follows:

(i) For helicopters with an “affected ‘angle 0’ parts,” the compliance time is before accumulating 660 total hours TIS on the affected part or within 100 hours TIS after the effective date of this AD, whichever occurs later, and without accumulating 1,600 total hours TIS on the affected part. Thereafter, the compliance time is at intervals not to exceed 330 hours TIS.

(ii) For helicopters with an “affected ‘angle 1’ parts,” the compliance time is before accumulating 110 total hours TIS on the affected part or within 50 hours TIS after the effective date of this AD, whichever occurs later, and without accumulating 950 total

hours TIS on the affected part. Thereafter, the compliance time is at intervals not to exceed 110 hours TIS.

(iii) For helicopters specified in paragraph (c) of this AD, Note 1 of EASA AD 2018-0061 specifies accumulated FH as, “Unless otherwise specified, the FH specified in Table 2 of this AD are those accumulated since the previous M/R blade thimble inspection.” This AD requires intervals thereafter to be accumulated since accomplishment of paragraph (g) of this AD.

(4) While paragraph (5) and Note 3 of EASA AD 2018-0061 specify revising the Aircraft Maintenance Program (AMP), this AD does not require this action.

(5) Where the service information referenced in EASA AD 2018-0061 specifies accomplishment of certain corrective action by “ECD” or an authorized service or repair station, this AD requires the corrective actions to be performed by a qualified mechanic.

(6) Where the service information referenced in EASA AD 2018-0061 specifies contacting “ECD” or an authorized service or repair station, this AD requires performing the corrective action in accordance with FAA-approved procedures.

(7) The “Remarks” section of EASA AD 2018-0061 does not apply to this AD.

**(i) Alternative Methods of Compliance (AMOCs):**

(1) The Manager, International Validation Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the International Validation Branch, send it to the attention of the person identified in paragraph (j)(2) of this AD. Information may be emailed to: 9-AVS-AIR-730-AMOC@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

**(j) Related Information**

(1) For EASA AD 2018-0061, contact the EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email [ADs@easa.europa.eu](mailto:ADs@easa.europa.eu); Internet [www.easa.europa.eu](http://www.easa.europa.eu). You may find this EASA AD on the EASA website at <https://ad.easa.europa.eu>. You may view this material at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110. This material may be found in the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0196.

(2) For more information about this AD, contact Kathleen Arrigotti, Aerospace Engineer, Large Aircraft Section, International Validation Branch, FAA, 2200 South 216<sup>th</sup> St., Des Moines, WA; telephone (206) 231-3218; email [kathleen.arrigotti@faa.gov](mailto:kathleen.arrigotti@faa.gov).  
Issued on March 20, 2021.

Gaetano A. Sciortino, Deputy Director for Strategic Initiatives,  
Compliance & Airworthiness Division,  
Aircraft Certification Service.

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